

Notice of Allowability

Application No.

10/749,977

Examiner

Jaworski Francis J.

Applicant(s)

WODNICKI ET AL.

Art Unit

3768

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amdt 7/30/07.
2. ☒ The allowed claim(s) is/are 1 - 25.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Francis J. Jaworski
Primary Examiner

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Wodnicki (US6759888) in claim 11 is directed solely to drive circuit switching.

Wodnicki (US6836159) claimings include to features of the plural transducer (array) transmit switch circuit and controls therefore.

Wodnicki (US6856175) has claims directed to tailoring of the transmit rise/fall times to the driven ultrasound transducer.

Wodnicki (US6956426) claims inter alia features of a high voltage transmit circuit.

No obvious type double patenting issues were raised by the demarcation from the claiming in this application.

Erikson et al (US6589180) is directed to separate IC layer or single high voltage integrated circuit transmit/receive switch operation together with receive amplifier per Figs. 5 – 6 and col. 10 – 11 discussion.

Oppelt et al (US5603324, of record with the IDS filed 12/30/2003 suggests that a duplex switch may be integrated with the array substrate and couple a high voltage transmit amplifier integrated circuit to the receive amplifier, as generally shown in prior art Fig. 1.

Angelsen (US6540677) is directed to remote high voltage drive to a transducer array having a proximal integrated circuit containing pre-amplifiers and receive delay elements.

None of the prior art alone or in combination teaches or suggests a high voltage pulser or with second low voltage switching state of operation in either case with a receive amplifier incorporated together an integrated circuit with a low voltage switch protecting the switch and receiver when in its protected state together with one or more

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ultrasound transducers, or a specific high voltage switching stage and amplifier coupled to an ultrasound transducer as claimed.

Any inquiry concerning this communication should be directed to Jaworski Francis J. at telephone number 571-272-4738.

FJJ:fjj

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Francis J. Jaworski
Primary Examiner